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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

BLOUNT, STEVEN

ART UNIT

PAPER NUMBER

2661

DATE MAILED: 09/11/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/544,865

Applicant(s)

YEUNG, PAULINE SAI-FUN

Examiner

Steven Blount

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 17 July 2000.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 9-18 is/are rejected.
- 7) ☒ Claim(s) 6-8 and 19-21 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                  | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>2</u> . | 6) <input type="checkbox"/> Other: _____                                    |

***Claim Rejections - 35 USC § 112***

1. Claims 4 - 5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With respect to claim 4, if the cycle number is used to define the selection of the first queue in claim 1, then how can it be redefined to be c-1 in dependent claim 4?

With respect to claim 5, the phrase "is the same as" is vague and indefinite. In what respect are they the same ? Is the first queue comprised of the second queue ? Are they simply similar in all respects, yet separate queues ?

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-5 and 11-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. patent 4,495,615 to Wilcke in view of U.S. patent 5,379,278 to Safadi. With respect to claim 1, Wilcke teaches receiving queues over bus (switching matrix) 6 and placing them in a set of queues 7, 8, etc. (see the numbers of the output buffers to the right in figure 1) "based on" the cycle number of the time slot, as described in column 2, lines 1+. Wilcke does not however teach flushing a queue before hand. Safadi teaches that it is desirable

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to initialize the buffers by performing the housekeeping function of flushing them in col 5, lines 20+.

It would have been obvious to one of ordinary skill in the art at the time of the invention to have flushed the output buffer(s) of Wilcke, in light of the teachings of Safadi, in order to allow the process to proceed at the beginning without any memory elements remaining in it from a previous cycle or set of cycles.

With regard to claim 2, the number of cycles from which to transmit the packet is an obvious matter of design choice. With regard to claim 3, there are 4 buffers shown in figure 1 of Wilcke. With regard to claim 4, since the cycles are all operatively the same, it is immaterial whether you call a cycle c or c-1. With regard to claim 5, it would be obvious to clear the queue that you are going to put a packet into. With regard to claims 11 – 14, the apparatus limitations are described in the method steps described above. With regard to claim 15, the type of bus used is a matter of design choice. With regard to claim 16, member 6 in Wilcke has both ingress and egress ports. With regard to claim 17, note members 7 and 8 in figure 1 of Wilcke. With regard to claim 18, having more than 4 queues is an obvious variation of having 4 queues as taught in Wilcke.

4. Claims 9-10 are rejected under 35 U.S.C. 103(a) as being obvious over U.S. patent 4,495,615 to Wilcke in view of U.S. patent 5,379,278 to Safadi as applied above, and further in view of U.S. patent 6,137,807 to Rusu et al.

Wilcke/Safadi teach the invention as described above, but do not teach the use of free and used pointers. This is taught in Rusu et al. See figure 7. It

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would have been obvious to one of ordinary skill in the art at the time of the invention to have provided Wilcke/Safadi with pointers in the memory, in light of the teachings of Rusu, in order to help manage the memory in the queues and improve the flow of information through the switch.

5. Claims 6-8 and 19-21 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6. Steven Blount may be reached at the Patent Office between the hours of 9:00 and 5:30 Monday through Friday at (703) 305 – 0319.



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SB



8/28/03